REMARKS

Claims 11, 20, 30 are amended, no claims are canceled, and claims 76-79 are added; as a result, claims 1-35 and 37-79 are now pending in this application.

Claim 11 is amended to clarify the claim by adopting the same term "buffer". This amendment is not narrowing and not made for purposes of patentability.

Claim 78 is added and it includes the subject matter of claim 11, which was indicated as allowable.

Claim 79 is added and it includes the subject matter of claim 52, which was indicated as allowable.

Abstract Objection

Applicant respectfully traverses the objection to the abstract. The entire abstract as filed is reproduced below.

> An average filter or filters is used in line with the output of an interpolation filter to downscale an image. The interpolation filter upscales a source image or bitmap of pixels into an intermediate form and the average filter or filters downscales the intermediate form to a destination image or bitmap of pixels. This configuration incorporates a small amount of logic with a relatively low incremental cost, enabling high quality downscaling of text and computer graphics content. The invention achieves quality comparable to a filter/scalar combination with more taps or a separate decimation pass.

As filed and shown above, the abstract meets all the MPEP requirements. Clarification of the objection or withdrawal of the objection is requested.

§103 Rejection of the Claims

Claims 1, 2, 4, 5, 12-15, 17-20, 22-25, 27-34, 41, and 43 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Sakamoto (U.S. Patent No. 6,157,414) in view of Malinowski et al. (U.S. Patent No. 5,574,572). Claims 10, 12, 51, and 53-55 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Sakamoto in view of Tse et al. (U.S. Patent No. 5,473,342). Applicant addresses both of these objections together as a *prima facie* case of obviousness has not been made.

Specifically, all of the elements of the claims have not been shown in applied art as discussed in the Office Action. Claim 1 recites, in part, "a first average filter to downscale the intermediate image to the destination image." The Office Action states at page 3, second paragraph "a first average filter (low pass filter) to downscale the intermediate image to the destination image." Applicant submits for purposes of claim 1 that a low pass filter is not equivalent to an average filter. The further describe the average filter as claimed, claim 1 states that the average filter operates "to downscale the intermediate image to the destination image." There is no discussion in the Office Action of how a low pass filter can downscale an image. Applicant respectfully submits that a *prima facie* case of obviousness has not been made as neither Sakamoto nor Malinkowski, either alone or in combination teach all of the elements of claim 1.

Claim 2 recites, in part, "the first average filter further is to average horizontally the intermediate image on a two-by-two pixel basis." Claim 2 recites further features of the average filter. Again applicant submits for purposes of claim 2 that a low pass filter is not equivalent to an average filter. There is no discussion in the Office Action of how a low pass filter can downscale an image. Applicant respectfully submits that a *prima facie* case of obviousness has not been made as neither Sakamoto nor Malinkowski, either alone or in combination teach all of the elements of claim 2.

Claim 4 recites, in part, "a second average filter to average vertically the intermediate image on a two-by-two pixel basis." Applicant submits for purposes of claim 4 that a low pass filter is not equivalent to an average filter. The further describe the average filter as claimed, claim 4 states that the second average filter operates "to average vertically the intermediate image on a two-by-two pixel basis." There is no discussion in the Office Action of how a low pass filter can average vertically . . . on a two-by-two pixel basis. Applicant respectfully submits that a *prima facie* case of obviousness has not been made as neither Sakamoto nor Malinkowski, either alone or in combination teach all of the elements of claim 1.

Claim 10 recites, in part, "average logic to downscale the intermediate image to the destination image." Applicant can not find these features in either Sakamoto or Tse. The Office refers to the analysis of claim 1. However, the Office Action with regard to claim 1 does not discuss average logic as recited in claim 10. Accordingly, a *prima facie case* of obviousness has

not been made. Applicant requests reconsideration and allowance of claim 10 and its dependent claims 12-14.

Claim 15 recites, in part, "a first average filter communicatively coupled to an output of the interpolation filter, wherein the first average filter is to downscale the intermediate plurality of pixels to the destination plurality of pixels." Applicant submits for purposes of claim 15 that a low pass filter is not equivalent to an average filter. The further describe the average filter as claimed, claim 15 states that the average filter operates "to downscale the intermediate plurality of pixels to the destination plurality of pixels." There is no discussion in the Office Action of how a low pass filter can downscale an image. Applicant respectfully submits that a *prima facie* case of obviousness has not been made as neither Sakamoto nor Malinkowski, either alone or in combination teach all of the elements of claim 15.

Applicant further submits that claims 17-19 depend from claim 15 and are allowable at least for at least the reasons stated above with regard to claim 15.

Claim 20 now recites the same features as recited in claim 6, which was indicated as allowed. Accordingly, claim 20 now is allowable. Allowance of claim 20 and its dependent claims 22-24 is requested.

Claim 25 recites, in part, "a first average filter to downscale the intermediate plurality of pixels to the destination bitmap." The Office Action states at page 3, second paragraph "a first average filter (low pass filter) to downscale the intermediate image to the destination image." Applicant submits for purposes of claim 25 that a low pass filter is not equivalent to an average filter. The further describe the average filter as claimed, claim 25 states that the average filter operates "to downscale the intermediate image to the destination image." There is no discussion in the Office Action of how a low pass filter can downscale an image. Applicant respectfully submits that a *prima facie* case of obviousness has not been made as neither Sakamoto nor Malinkowski, either alone or in combination teach all of the elements of claim 25.

Applicant further submits that claims 27-29 depend from claim 25 and are allowable at least for the reasons stated above with regard to claim 25.

Claim 30 recites, in part, "downscaling using an average filter the intermediate plurality of pixels to the destination plurality of pixels." Applicant can not find this feature in Sakamoto nor Malinkowski, either alone or in combination. The Office Action states at page 4 that claim

30 is analyzed similarly and rejected same as claim 1. Applicant traverses as claim 1 was not analyzed to have the instructions as recited in claim 30. For example, claim 30 recites downscaling using an average filter . The Office Action has not indicated an average filter in the analysis of claim 1. There is no discussion in the Office Action of how a low pass filter can downscale an image. Applicant respectfully submits that a *prima facie* case of obviousness has not been made as neither Sakamoto nor Malinkowski, either alone or in combination, teach all of the elements of claim 30.

Applicant further submits that claims 31-34 depend from claim 30 and are allowable at least for the reasons stated above with regard to claim 30.

Claim 51 recites, in part, "a first average filter to downscale the intermediate plurality of pixels to the destination bitmap." The Office Action states that claim 51 is analyzed similarly and rejected same as claim 1. Applicant submits that claim 51 is allowable for at least substantially similar reasons as stated above with regard to claim 1. Reconsideration and allowance of claim 51 and its dependent claims 53-55 are requested.

Allowable Subject Matter

Claims 3, 6-9, 16, 21, 26, 35, 37-50, and 56-75 were allowed.

CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (612) 349-9587 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

BURTON WRIGHT

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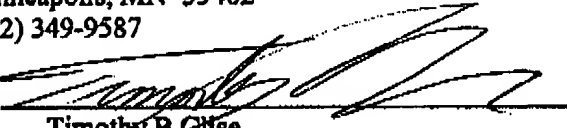
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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop Amendment, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this ___ day of July, 2005.

Tina Kohut

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